# OorVair fuel cell technology

Scale-Up of Carbon/Carbon Composite Bipolar Plates



# Scale-Up of Carbon/Carbon Composite Bipolar Plates

Contractor: Porvair Fuel Cell Technology
Ken Butcher - 828 693 0256 ext 359
700 Shepherd Street
Hendersonville, NC 28792
Kbutcher@selee.com

Subcontractor: International Fuel Cells



## **Project Details**

Duration: 36 months

• Funding:

•DOE: \$3,056,787

•PFCT: \$2,256,787

•IFC: \$ 800,000

•Total: \$6,113,574

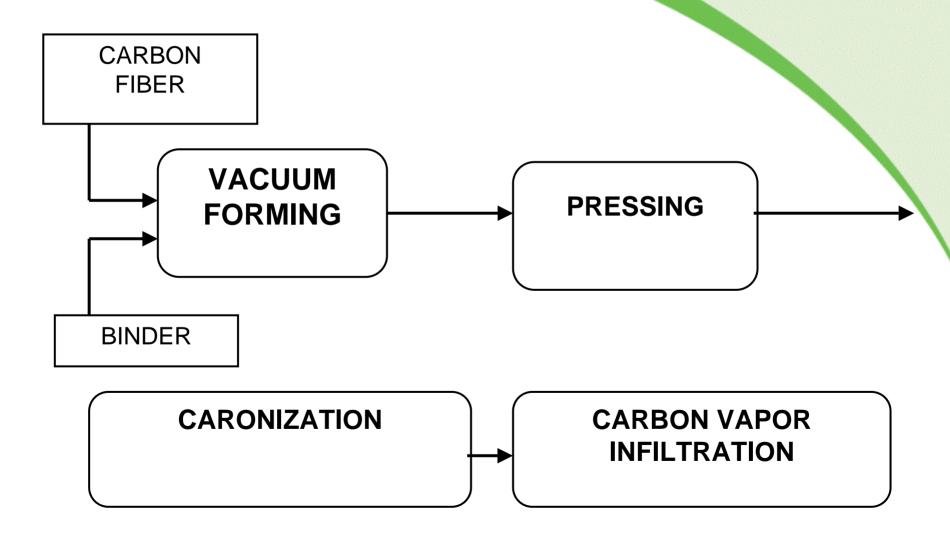


## **Project Goals**

- Optimize material, design & production parameters
- Build a production line for 300 parts per hour
- Demonstrate process capability for high quality inexpensive plates



#### **Production Flow**





#### **Work Plan**

PHASE I - PILOT LINE 10 PARTS/HOUR

MILESTONE - GOOD PLATES FROM PILOT LINE

PHASE II - PRODUCTION LINE FOR 300 PARTS PER HOUR

**SCHEDULE:** 

**COMPLETION** 

BUILD PHASE I LINE: MONTH 6

**TESTS WITH PHASE I LINE: MONTH 18** 

BUILD PHASE II LINE: MONTH 24

**TESTS WITH PHASE II LINE: MONTH 36** 



#### **Current Status**

- VACUUM FORMING EQUIPMENT INSTALLED
- PLATES COMPLETED IN SMALL CVI FURNACE
- LIFE TESTING OF FIRST PLATES UNDER WAY AT IFC
- PHASE I CVI REACTOR SELECTED











